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DOCTORAL QUALIFYING THESIS

A DEFINITIVE CRITIQUE OF EXPERIENTIAL LEARNING THEORY

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## THE DEFINITIVE CRITIQUE OF EXPERIENTIAL LEARNING THEORY

### Phase Three: Dialectics and the Cycle

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The research was begun in 1977 at the request of Dr. David Kolb, co-originator of Experiential Learning Theory (ELT), the Experiential Learning Cycle Model, its Learning Style Inventory, and adaptive competence instruments and measures. It was undertaken to substantiate the philosophical and epistemological underpinnings of the theory, i.e. to test for construct validity. The document was to have been published as part of a research project on Life Long Learning and Adult Development funded by the National Institute of Education, through the Department of Organizational Behavior. Weatherhead School of Management, Case Western Reserve University, Cleveland, Ohio. Although Kolb signed off on the research conclusions, the findings were not published. Neither was the theory amended to make it valid.

### ABSTRACT

The paper is the third phase of a definitive critique of Experiential Learning Theory and its hypothesized construct validity. A thorough examination of the intellectual and scientific roots of Experiential Learning Theory, its assumptions, and foundational references were analyzed to address three substantive questions fundamental to the theory. What is learning? Are the Experiential Learning Model modes separate and distinct in their functions so as to necessitate a four-stage cycle for learning to take place? Is dialectic tension the mechanism that mediates the relationship between the modes and between the person and the environment? Phase One of the critique concludes that Experiential Learning Theory's definition of learning is a dramatic distortion of the epistemological fundamentals it references. Phase Two of the critique concludes that the internal structure of the Experiential Learning Cycle Model is rife with inherent contradiction and inconsistency. Phase Three of the critique addresses the use of dialectic tension as the mediating function of learning, by tracing the meaning of dialectic from its inception with Socrates through Karl Marx and up to its place in Experiential Learning Theory. Phase Three concludes that dialectic tension is *not* a viable mechanism for mediating modes of learning. The research further substantiates that the proposition that learning, by its very nature, is a tension and conflict-filled process is a misapplication of dialectic tension. The author recommends a complete re-examination of the mechanisms which mediate between learning modes. The paper concludes that the infrastructure of Experiential Learning Theory, its Model, and the Learning Style Inventory is faulty at the core, and recommends that the operational evolution of learning styles as a combination of contiguous modes of learning be re-evaluated.

### PHASE THREE

This third and final section of the critique explores Kolb and Fry's proposition that dialectic tension is the mechanism that mediates the relationship between the four learning modes and between the person and the environment. This exploration begins with an analysis of Experiential Learning Theory as an epistemic cycle. Epistemic cycle is a term coined by Piaget, and his discussion of it is intimately linked to equilibration.

The main idea is commonplace: however varied the goals pursued by action and thought (to modify inanimate objects, living objects, oneself, or simply to understand them), the subject seeks to avoid incoherence and always tends therefore to certain forms of equilibrium, at times reaching them, but using them only as temporary stages.

Piaget, 75:178

Stages of equilibrium are temporary because each new structure formed, each new closure, provides the foundation for a new structure to be formed. This ongoing equilibrium-attaining process is termed equilibration and has three major forms:

...the equilibrium of relations between subject and objects, essential physical or experimental knowledge; the equilibrium of coordinations between schemes or between subschemes of schemes, which dominates logico-mathematical knowledge; and, the general equilibrium between the whole and the parts, hence between the differentiation of schemes or of subschemes and their integration into a total system.

Piaget, 75:178

All three types of equilibration employ a common structural mechanism. All three require *both* positive characteristics or affirmations related both to outside facts and to conceptualizations and operations required for assimilation, and corresponding *negative* or *complements* also related to the objects and operational activities. (Piaget, 75:183) The negation or complementary characteristics stimulate a non-balance or disturbance in the equilibrium of one construction, or scheme, or subsystem of

schemes. The non-balance involves the recognition of a lack of inverse or complementary operations and adjustments to accommodate negative or complementary characteristics. Hence, equilibration is bound up with *compensation* activities in order to attain what Piaget terms a “progressive reversibility.” (Piaget, 75:184)

What does all this mean? Almost all constructs or figures and their contiguous constructive transformations are formed on the positive characteristics of objects, events, sensations, and experience. As the construction becomes stable, or the gestalt emerges as a whole, equilibration takes place. The object or sensory experience is assimilated, and accommodations are made to the object or sensation. Now a system of regulations emerge which serve to signal the need for compensation within the construction or structure, so that negative or complementary characteristics can be included in the construct. Without the negative or complementary characteristics, reversibility is not possible.

Piaget proposed that recognition of a negation or complement represents a non-balance in the construction. If equilibrium is to be maintained, there must be reversibility. If A equals B, then B must also equal A. If A equals B, B cannot *not* equal A. Nor can B equal not-A. Without reversibility, there is no way to compensate for *gaps in a structure*, be it sensori-motoric, cognitive, or socio-emotional. Non-balance involves incorporation of complementary or negative characteristics in order for new equilibrations to be formed.

The purpose of introducing this final section with the epistemic cycle and its relation to equilibration is two fold. First, Piaget’s propositions on equilibration will

provide support or balance for the critique of dialectic tension. Second, it provides a contrast to dialectic tension as the mediating mechanism in the epistemic cycle that Experiential Learning Theory represents.

If it will be recalled from early on in Section Two of this treatise, Experiential Learning Theory contends that a dialectic tension *evolves from the adaptive choices* the person makes in the assimilating and accommodating of experience. Those adaptive choices, hypothetically, trigger a dialectic tension between learning modes within the person. This dialectic tension exists between each two of the four learning modes of knowing and transformation. It provides the explanation for how learning is, *by nature*, a conflict-ridden process. Finally, Experiential Learning Theory proposes that the dialectics are resolved by the inherent nature of dialectic movement. That resolution allows learning to take place.

It has already been demonstrated that learning does *not* depend on adaptive choices. It has already been demonstrated that the activities which mediate concrete experience and sensation toward forms of knowing appear to be functionally and reciprocally interrelated. Piaget's theory of equilibration in epistemic cycles is offered as an alternative framework with which to explain the internal mechanisms and regulations whereby learning takes place.

The point, however, is to highlight that dialectics can *not* be applied to Experiential Learning Theory as it claims learning to employ it; that learning is *not* conflict-ridden by nature; and, that the use of dialectics conflicts with the essential aspects of genetic epistemology and association theory.

Dialectic is such a complex notion that the best way to understand its misapplication in Experiential Learning Theory is to trace its development from its earliest known usage to the present time. Two tangential and significant findings come from this approach. One sees how an idea is transformed through the stream of intellectual thought, and hence can best determine what is true and what is distortion in its application. One can also see how ascribing materiality to that which is fundamentally non-empirical, obscures and distorts the essence of the matter, the *constitutive nature of the notion*.

The introduction of the notion of dialectic can be traced to the Greek philosophers. These philosophers based their system of attaining to knowledge and Truth on the fundamental existence of Soul, from which emanates all faculties of consciousness, and all objects given in experience. Soul houses the essential nature of all things as they really are, as Truth. Knowing the constitutive nature of things requires knowing the final or first cause of all phenomena. This knowing hinges on attaining Scientific Knowledge. Scientific Knowledge rests on primary principles, those premises which are true and primary, and require no demonstration. From Scientific Knowledge, one progresses toward knowledge of the Ultimate Good, or Unity of Ideas, a realm which originates through *intuition*. This system of thought concludes that the essential or constitutive nature of things as they really are (*nuomena*), can not be attained on *appearances*. For the essence of things, by definition, resides in a realm which transcends experience or what can be given through empirics. It resides in Soul, which is the creator, originator, of form and substance itself.

Hence, the path the Greek philosophers chose to attain Truth was through pure reason. Through various forms and methods of reasoning, one could attain to primary principles, and from thence emerge into the light of Wisdom. Reasoning takes many forms, and as such, was useful in attaining many different kinds of knowledge. Both Socrates and Aristotle delineate these forms on the basis of their content and their starting propositions. Dialectic is first introduced as a form of reason in discourse, which took as its starting proposition, first principles themselves. Its content is verification and affirmation of first principles. Its result will be the highest form of knowledge one could achieve.

Dialectic translates from the Greek as discourse, speech, conversation. This notion suggests that Absolute Truth, though an object of individual attainment, is best achieved through discourse with others, preferably others who are ready to engage in discourse of such an intellectual nature. Dialectic is the fundament of much of western pedagogy. An example of dialectic is given in Plato's Republic, where Socrates is in discourse with his pupils and fellow philosophers. The nature of the dialectic is *not* argument. It is *inquiry*, questioning, discussion. The content is the essential nature of Being, as distinguished from lower forms of intellectual discourse related to Becoming.

Even in Socrates' time, the meaning of dialectic was abused. Zeno of Elea, who is considered one of the earliest dialecticians, is severely chastised by Plato for his conscious and deliberate arguing on the basis of false premises for the enhancement of his own ego. Such abuse was considered *sophism*. According to Kant, Zeno "maintained and subverted the same propositions by arguments as powerful and

convincing on the one side as on the other.” (Kant, 1789:301) Later, Kant chastises the ancients, as a whole, for their use of dialectics.

Socrates employs dialectic as method of inquiry. It represents a systematic form of or procedure for questioning and explanation, focused on first principles. Socrates divides all knowledge into two realms. The realm of Opinion includes perception of shadows (visual images) and beliefs. It resides between knowledge of the Absolute and Nothing. In the realm of opinion lay all empirics and all hypotheses, knowledge of the Many as opposed to knowledge of the One. The other realm of knowledge Socrates creates is the realm of Intellect, which includes mathematical objects, all forms, and the Absolute Good. (Republic, Book VII:534)

The realm of opinion can be understood with the senses and through ordinary argument over hypotheses. It is not capable of revealing the essential nature of things as they really are. Yet, the realm of opinion maintains its usefulness for other forms of knowledge. The realm of the Intellect can only be attained through Reason.

...when a person starts on the discovery of the absolute by which the light of reason only, and without the assistance of sense, and perseveres until by pure intelligence he arrives at the perception of the absolute good, he at last finds himself at the end of the intellectual world, as in the case of sight at the end of the visible.

Then this is the progress you call dialectic?

True.

Republic, Book VII:523-3

Socrates characterizes dialectic as the “power of elevating the highest principle in Soul to contemplation of that which is best in existence.” Dialectic is to be employed after a long preparatory education in the arts, mathematics, and previous disciplines of science



and thought. For when one is ready for Dialectic, one is capable of going directly to first principles and doing away with all other forms of inquiry.

Aristotle is next to discuss dialectic in great length. Aristotle redefines dialectic as the “process of criticism wherein lies the path to principles of all inquiries.” (Topica, Book I, 2:201) Aristotle claims that dialectic belongs to the realm of opinion. He applies dialectic to the realm of the analytic, in contrast to Socrates who assigns it to the realm of the transcendental. Aristotle’s distinction set the stage for centuries of controversy over the Meaning and application of dialectic.

In Book I of the Topica, Aristotle delineates forms of reasoning. He defines reasoning as “an argument in which certain things being laid down, something other than these necessarily comes about through time.” The first form of reasoning is Demonstration. This begins with first principles or premises that are true or primary. It employs a *didactic method* of reasoning. Reasoning by demonstration is distinguished from the second form of reasoning that begins with opinion, or generally accepted beliefs. This form of reasoning employs *dialectics*. Dialectic reasoning is a form of argument which does not consider first principles. It is not a method for attaining absolute knowledge. It is a type of reasoning by which opinions become accepted by a majority of the most notable and illustrious of philosophers. Aristotle’s definition of dialectic is in direct contradiction to Socrates’.

Aristotle goes on to distinguish dialectic propositions and dialectic problems. Dialectic reasoning is to be applied to a proposition that is “held by all men, or by most men, or by the philosophers, i.e. either by all, or by most, or by the most notable of these, provided it not be contrary to the general opinion, nor not held by anyone.”

(Topica, I:10-11) Dialectic reasoning can be applied to the arts, the lower sciences, and problems where the subject of inquiry contributes either to choice and avoidance, truth and knowledge, or as an aid to some other such problem. Dialectic reasoning may also include contraries.

Whereas Socrates employs dialectic as a form of discourse directed toward uncovering Truth, Aristotle employs it as a form of argument directed toward general opinion or beliefs that are generally accepted by general opinion, or knowledge applied in the realm of science. Aristotle removes dialectic from the realm of the Intelligible and Transcendental contemplation, and places it in the realm of Sensate and Analytic contemplation. Although different in purpose and function, Socrates, Plato, and Aristotle all utilize dialectic as a method of attaining knowledge, a procedure for reasoning, a heuristic.

When Kant takes on dialectic and dialectic reasoning, the debate gets much stickier and hotter. Kant's position takes its hint from Aristotle, but goes much farther in challenging the ancients' use of dialectic for transcendental comprehension. From Kant's perspective, dialectic is a form of inquiry that creates a *logic of illusion*.

Different as are the significations in which the ancients used this term for a science or an art, we may safely infer, from their actual employment of it, that with them it was nothing else than a logic of illusion, a sophistical art for giving ignorance, nay, even intentional sophistries, the colouring of truth, in which the thoroughness of procedure which logic requires was imitated, and their topic employed to cloak the empty pretensions.

Kant, 1787:68

Kant distinguishes between the transcendental dialectic and the transcendental analytic. With the analytic, pure cognition has reference to objects given in experience and in intuition. All content must have a reference to an object, for only through reference to

its object can cognition be recognized as true or not true. This is just as true for objects in intuition as those in the material realm. In the same sense that every subject must take a predicate, every cognition must take an object either in thought, intuition, experience, or matter.

Kant devotes over four hundred pages of the Critique of Pure Reason to exposing how pure cognition misleads and deludes itself through the application of dialectics. As a procedure for reasoning, a heuristic, dialectic suggests that humans can attain to a kind of knowledge to which no human being can attain. Kant argues that dialectic asks Reason to employ pre cognition and principles of the understanding *by themselves*, without reference to any object in experience or given in intuition. The result is that dialectic makes an object of itself, and deludes Reason into thinking that it is contemplating Truth, when in fact, it is contemplating nothing that has reference to an object at all.

This makes dialectic a set of procedures and propositions that are based on false premises, i.e. a form of sophism. In a difficult, but important passage, Kant distinguishes between his transcendental analytic and the sophism of a transcendental dialectic.

The exercise of this pure cognition, however, depends upon this as its conditions, that objects to which it may be applied be given to us in intuition, for without intuition the whole of our cognition is without objects, and is therefore quite void. That part of transcendental logic, then, which treats of the elements of pure cognition of the understanding, and of the principles without which no object at all can be thought, is transcendental analytic, and at the same time a logic of truth. For no cognition can contradict it, without losing at the same time all content, that is losing all reference to an object, and therefore all truth.

But because we are very easily seduced into employing these pure cognitions and principles of the understanding by themselves, and that even beyond the boundaries of experience, which is the only source whence we can obtain matter (objects) on which those pure conceptions may be employed – understanding runs the risk of making, by Means of empty sophisms, a material and objective

use of the mere formal principles of the pure understanding, and of passing judgments on objects without distinction – objects which are not given to us, nay, perhaps cannot be given to us in any way.

Kant, 1787:69

In essence, Kant contends that the use of dialectic is fallacious and misleading to Pure Reason itself. His Antinomies, a method of resolving thesis and antitheses considering paralogisms about the soul, the world, and proof of God's existence, are classified as transcendental dialectics for they demonstrated an *illicit* or unlawful use of Reason. Paralogisms are fallacious arguments wherein the conclusions that are reached do not follow from their premises.

In a like manner, Truth, which supposedly is reached through a transcendental dialectic, cannot be attained, for dialectic has no reference to an object given either in experience or intuition. Kant argues that Truth can only be established as it refers to an object given either in experience or intuition. Without such reference, dialectic has no content. That which is void of content leads only to false conclusions, not to Truth. Pure Reason is limited in the knowledge it can actually attain from the Realm of the Transcendental. The knowledge Pure Reason can attain with assurance is limited to the logic of a transcendental analytic. Kant exposes dialectic as an illusory trick Pure Reason performs upon itself.

Kant's challenge of the limitations of Pure Reason to know transcendental, essential Truth, and Being, was taken up by Hegel. Hegel's challenge rests upon a very different understanding of the power of dialectic. Hegel represents dialectic as a *movement* that reveal the essence of Idea or Notion to itself. That which is the essence of any finite object is *within the object, as an infinity*. The infinity is its Ideal or essential being-ness, and is represented by its Notion. The Notion or essence of being becomes

revealed through a process of the finite *becoming into itself*. In the emergence of essence, or Notion, Spirit is revealed. (Hegel, 1831:155)

As essence is Idea and Notion, the very core of any proposition is its “turning back into itself.” This is Hegelian Dialectic Movement. It is a movement inherent in any proposition itself. Since dialectic movement reveals essence, Notion, it replaces analytical logic and proof. Hence, Hegel argues contra to Kant, contending that it is through dialectic that the Transcendental can be known as actual Being. (Hegel, 1831:123)

Dialectic movement as constitutive of all propositions, and thence constitutive of all fine objects, was employed by Hegel to explain the very creation of the Universe itself. In Phenomenology of Mind, Hegel describes a cosmology wherein the Divine Eye turns in unto itself, and gazes through and past itself to the present earth upon which it restores clarity and experience or attention to the immediate present. (Hegel, 1807:73) through dialectic movement, Spirit (the essence of Notion, Idea) comes to experience objects as they are in consciousness. The essence of every object or conception is within the Notion of itself in consciousness, and not as it appears in substance or form. No material substance *is as it appears to be*. The Truth of its is-ness, its Being or essence, can only be revealed through its turning in unto itself as Idea. The continual dialectic movement is therefore inherent in making true any proposition as it really is.

At the core of Hegel’s dialectic movement is the process of *sublation*. Sublation is the canceling out of a proposition while still preserving it and subsequently elevating it. (Hegel, 1831: 834) The process of sublation works like this. The presence of any concept or object is its positive. To turn in unto itself, requires that it negate its

positive presence, leaving the absence of the positive, but the presence of the negation. The presence of the negation does not annihilate the positive, for in negating, one affirms the existence of that which one negates. When the presence of the negation now turns in unto itself, negation of the negation takes place. Hegel claims that with this dialectic movement, the essence of the proposition is revealed.

Negation of the negation is, in common terms, the existence of a *substantive void*. The essence which emerges from this void is Notion or Ideal which encompasses both the positive and its negation within itself. Hegel called this outcome a synthesis. Synthesis is no more than the essence of any proposition. Existence, then, sets up the conditions for non-existence. Embedded in each positive is its negation, and in the negation of the negation, is the essence of the proposition.

If I propose the existence of X, to know what X is, in its essential is-ness, requires dialectic movement of X in unto itself through sublation. Begin with,

- 1) The presence of X = positive;
- 2) Now negate X, which gives “not-X” or  $-X$ . What is present now is not the absence of X, but the presence of X in the presence of its negation,  $-X$ ;
- 3) Now sublate  $-X$ , and you arrive at the presence of the negation of the negation, “not-X or  $-(-X)$ ;
- 4) What emerges is a new X, which is the elevated Ideal or essence of X.

The procedure of dialectic movement which reasons from the negation of a negation is just the sort of reasoning which Kant contends can not be done. Pure Reason is left with the illusion of knowing that which it cannot possibly know. To reason from the negation of a negation, is reasoning that does not, by definition and by demonstration, have ground in any object given either in experience or intuition. If one reasons on Transcendental concepts or objects given in intuition, and then follows a procedure of negation of the negation of the transcendental object, one is reasoning with a logic

based on illusion – illusion of the transcendental as object or substance which can be negated.

Once one negates an idea that is not substantive to begin with, one cannot cognize the negation without cognizing the idea. Hence, negation of a negation of a transcendental proposition is impossible. Such a proposition, then, cannot remain in the realm of conscious Reason, and thus cannot be cognized at all. Transcendental, by definition, transcends experience. The *source* of experience or idea transcends its object. It is not difficult to see how Hegel's use of dialectic and dialectic movement can fall prey to Kant's definition of *solipsism*. For Hegel assumes that the transcendental can be known through the principles of the heuristic itself, without reference to any object given in either experience or intuition.

Be this as it may, Experiential Learning Theory claims that it is Hegel's dialectic movement which mediates both the adaptive choices the person makes in relating to the world, and the opposing modes of the experiential learning cycle. That claim requires scrutiny in several aspects. First, Experiential Learning Theory's starting premise, its initial domain assumption, is that experience manifests consciousness. This is the empiricist stance. Hegelian dialectics, however, takes as its domain assumption the idealist stance, that consciousness, Idea, manifests itself through experience, as experience. Hence, Experiential Learning Theory is guilty of paralogism, wherein the conclusions it reaches do not follow from its starting premise.

Second, if sublation is taken as the procedure for dialectic movement, then the propositions that each two of the four modes are in dialectic relationship to one another does not fit with Hegel's construct. Sublation is the movement of a proposition

turning in unto *itself*. Thus Concrete Experiencing would turn in unto itself, *not* in unto Abstract Conceptualization, and vice versa. Reflective Observation would turn in unto itself, and *not* in unto Active Experimentation, and vice versa.

There cannot be sublation of A into B, or B into C. There can only be sublation of A and its negation, not-A. That which emerges from the negation of a positive is not a *different* or *polar opposite* proposition, but the presence of the negation of the original proposition. Hegel's point is to arrive at the essence of the proposition as it is *in itself*, not as it appears through another separate, distinct, different, or contrary proposition. Hence Experiential Learning Theory's application of Hegelian dialectic movement, again, does not follow from its starting premises.

Third, Experiential Learning Theory depicts the dialectic as a "tension" which creates conflict within the learning cycle between the modes of learning themselves. Hegel *never* refers to dialectic movement as conflictual, confrontational, or tension filled. In fact, Hegel considers dialectic movement a natural, creative power emanating from Divine Good and Absolute Spirit. Hegel's negation of negation is a *contradiction*, from which emerges the "essential moment of the Notion." (Hegel, 1831:830) Contradiction does not involve conflict or tension. It is simply a proposition which states that,

...a thing cannot be and not be at the same time, or a thing must either be or not be, or the same attribute cannot at the same time be affirmed and denied of the same object.

Aristotle, Metaphysics

Contra to Aristotle, Hegel's dialectic claims that a thing not only can be and not be at the same time, but that it is through negation of its presence or negation of what appears to be and the negation of that contradiction, that Absolute knowledge of what the thing is, emerges as essence, and can be known.



Clearly Hegel's dialectic movement is *not* what Experiential Learning Theory had in mind to describe the conflict-ridden, tension filled relationship between the four learning modes. The next logical source on dialectic is Marx. It is with Marx that one finds a definition of dialectic and dialectic movement that comes closest to the starting premises from which Experiential Learning Theory draws its conclusions. Marx's application of dialectics, however, is easily challenged by Kantian logic.

The significant point concerning Marxian dialectics is that Marx took a proposition based on Transcendental knowledge, and attempted to give it materiality, not only substance as an object in cognition or intuition, but as an object in socio-political experience. His Dialectic Materialism stands as one of the most misunderstood and misrepresented interpretations of a transcendental philosophical notion. In some respects, Marx's dialectics demonstrates how "logic of illusion" can become an "illusion of logic."

It is important to recall that Hegel is an Idealist. All phenomena and experience emanate from Spirit through Idea through Notion. Marx, on the other hand, is an Empiricist and a materialist. Idea is a reflection of phenomena. Idea emanates from experience, materiality, and substance. The Hegelian philosophical system and the Marxian political economy juxtapose the two traditional streams of western intellectual thought with which this Critique began. The fact that Hegel's dialectic movement was a form of reasoning toward the Transcendental, did not inhibit Marx from employing it as a mechanism of socio-political action in the realm of materiality.

Marx transduces Hegel's dialectic movement of Pure Reason within the context of thesis, antithesis, synthesis. The use of this triad, however, does *not* originate with

Hegel. The triad is not employed by Hegel at all. The philosopher Fichte adopts the notion of thesis, antithesis, synthesis from Kant's reference to these in his Antinomies. Marx adopts the triad to explain the dialectic movement of Pure Reason in unifying contradiction.

Wherein does the movement of pure reason consist? In posing itself, opposing itself, composing itself; in formulating itself as thesis, antithesis, synthesis; or, yet again, in affirming itself, negating itself, and negating its negation...But once it has managed to pose itself as thesis, this thesis, this thought, opposed to itself, splits up into two contradictory thoughts – the positive and the negative – the yes and the no. The struggle between these two antagonistic elements comprised in the antithesis constitutes the dialectic movement. The yes becoming no, the no becoming yes, the yes becoming both yes and no, the no becoming both no and yes, the contraries balance, neutralize, paralyze each other. The fusion of these two contradictory thoughts constitutes a new thought, which is the synthesis of them. This thought splits up once again into two contradictory thoughts, which, in turn, fuse into a new synthesis. Of this travail is born a group of thought. This group of thoughts follows the same dialectic movement as the simple category, and has contradictory group as anti-thesis. Of these two groups of thoughts is born a new group of thoughts, which is the synthesis of them.

Just as from the dialectic movement of the simple categories is born the group, so from the dialectic movement of the groups is born the series, and from the dialectic movement of the series is born the entire system.

Marx, 1847:91

It is clear from this passage alone, that Marx *misinterprets* Hegel's dialectic movement to suit his own purposes. First, dialectic movement is portrayed as a struggle, and a struggle between antagonistic forces. This portrayal belongs to Marx alone. Neither Hegel, Kant, Aristotle, Socrates, nor Plato ascribes antagonistic characteristics or a constitutive nature of struggle to dialectic or dialectic movement.

Second, whereas Hegel portrayed the conclusion or end of dialectic movement as an elevation toward transcendental Truth or essence, Marx depicts it as an elevation in the *organization of thought, in logical typologies* (from simple category to group to series to system). This interpretation of dialectic movement bears more similarity to Piaget's

reflective abstraction, or Bateson's levels of learning, or Russell's logical types. It has no basis in either the Greek or later philosophical ruminations on dialectic. For Hegel, synthesis does not result in higher organization of logical thought. It results in the essence of a thought itself, in its Notion.

Third, Marx describes the dialectic movement within a *yes* resulting in a *no*. It has already been demonstrated that Hegel's dialectic movement does not allow for dialectic movement of a positive to result in its opposite or a separate entity. The negation of *yes*, results in *not-yes*. Although Kant allowed for a range of possible other entities to exist between a thing and its negative, Hegelian sublation does not. Sublation only allows for the negation of *yes* to be the affirmation of *not-yes*. Hegelian dialectic movement does not allow for the *yes* and the *no* to turn back in unto each other.

What could have been Marx's rationale for such a blatant misrepresentation of his teacher's fundamental heuristic? The answer lay in Marx professing materialism. When one gives materiality to that which is fundamentally non-empirical, let alone transcendental, one is faced with ascribing form to that which does not actually take on form outside of intuition. When one tries to ascribe form to the "presence of a negation" or the "negation of a negation", one must somehow represent the presence of the absence of a proposition. This is exactly the problem Kant argues is inherent in the use of dialectic as a heuristic of reasoning.

One can materialize and see *white*. One cannot materialize the absence of white. Not-white has no reference in objectifiable experience. It has no form or substance. Non-white's only reference is as an abstraction in the mathematical reasoning of logic or the analytic. Hence to materialize non-white or the presence of a negation, Marx chose

to portray the negation of a proposition as its antithesis, the proposition's opposite. In so doing, he releases himself from the constraints of portraying the presence of a negation or absence, by portraying the presence of an opposing presence. Hence, not-white becomes black, not-yes becomes no. This understanding of dialectic is fallacious in itself, however, for between white and not-white, or between any opposing contradictions in logic, there is a full range of possibilities for the presence of other entities or objects in experience or intuition. Not-white may not be black. It could be many other colors and contrasts. The essence of not-white can only be known as the sublation of itself. To engage any proposition in a Hegelian dialectic, one cannot go outside the definitional range of the proposition itself.

Hence the materialization of a transcendental negation results in the *loss* of that which is the essence of the dialectic as a first principle. In addition, the essence of the initial proposition is lost. Whereas the negation in the transcendental dialectic of Hegel maintains the existence of the proposition through affirmation of its negation, *Marxian dialectics obliterates the existence of the proposition through affirmation of its opposite*. Using this logic of illusion, Marx abstracted from the particular to the general.

Applied to theory of political economy, it was Marx's premise that when the dialectic movement is perceived as inherent in capitalism, the essence of the natural order of political economy would emerge. That natural order, or essence of the nature of political economy as a nuomenon, is socialism. When capitalism *turns in unto itself* (negates itself and then negates its negation, or negates the antagonistic forces within itself) socialism will emerge as the essence of human political economic organization. For Marx, Socialism is the Notion or the Ideal that is the Essence of political economy

given in nature. Socialism is embedded in the proposition of Capitalism itself. Only through capitalism's negation of itself can it come to its essential Being.

It is not the purpose of this document to debate the application of Marxian dialectics to the creation of a natural socio-political-economic order. The essential point is that Marx misrepresented Hegel's notion of contradiction and negation of the negation, as well as the constitutive nature of dialectics. Even more relevant for purposes of Experiential Learning Theory, is the fact that neither Hegelian nor Marxian dialects can be proven. It has not been demonstrated that the negation of one proposition through its opposite results in a synthesis that is the essence of the initial proposition. Nor has it been proven that dialectic movement is inherent in every proposition, and that negation of a negation is not a logic of illusion. The entire realm of intellectual discourse in respect to dialectic, and dialectic movement is still subject to challenge on the basis of Kantian arguments.

The final point to be made here is that when one materializes a transcendental cognition, one gives substance and appearance to that which cannot be maintained in any material form or any substance, except as it refers to an object in intuition. To adopt a procedure, a heuristic, for reasoning which ends up negating even the object given in intuition, is to court pure illusion. As Socrates, Plato, Aristotle, Kant, and Hegel affirm, appearance in substance or experience cannot fully convey the essence of a thing, its Being-ness. Certainly it cannot convey the essence of a transcendental cognition. Giving dialectic movement material form by attaching it to events in history and objects in space, and by expressing sublation as a heuristic of oppositional and antagonistic forces, Marx creates *the illusion of an analytic logic*, that, in fact, draws its conclusions

from illusory and false premises. This is sophism. The object of any metaphysic, heuristic, or transcendental cognition cannot be materialized in any form that will represent what it really is. Such is the trap which empiricism and materialism weave for their proponents.

Unfortunately, Experiential Learning Theory falls prey to an even deeper trap. Experiential Learning Theory manipulates and distorts Marxian dialectic movement even further by re-applying it to the realm of learning, knowing, understanding, and reasoning. Here is what Piaget has to say about such attempts.

The “dialectics of nature” has attempted with some exaggeration to find “contradictions” in the very heart of operations at play in the physical world, for example, in situations of action and reactions; these causal models are, in fact, exempt of any logical or normative contradiction. In the biological field, on the other hand, it would appear that possible disturbances, defined as “normal” and “abnormal” (“normative” or “not normative” in the cognitive sense), speak in favor of inherent nonbalance expressed in the very laws of life (for example, death is not the reverse operation of survival as is the dissociation of a molecule compared to the intact molecule). In the sociological field, Marxist dialectics insist on the fundamental role of conflict and nonbalance, but we are not competent to judge this theory.

In describing cognitive development, the proposition that nonbalance or contradictions are inherent in the very characteristics of thought seem difficult to support, or least in the present stage of our knowledge. We have not succeeded in supplying a formal elaboration of a “logic” dialectic; “contradiction”, consequently appears as a notion whose significance is psychogenetic, sociogenetic, or historical, and not inherent in the operational structures which lead to a state of closure.

Piaget, 75:14

Learning theories concern themselves with objects given in experience, relation, cognition, *and* intuition. Any theory of learning must be held to a certain standard of rigorous construct validity. *This is especially true of theory which purports to classify individuals on the basis of empirical measures of learning.* The following position statements can now be made as a result of the research and examination of dialectic tension as the

mechanism that mediates the relationship between the four Experiential Learning Theory modes and between the person and the environment.

- 1) Dialectic “tension” is a fiction.
- 2) Dialectic tension does not arise from adaptive choice, nor is it the mechanism which mediates between modes of learning. Defining learning as “conflict-filled” is not grounded, and is a misapplication of dialectic as a starting premise.
- 3) The mechanism which mediates between learning modes needs to be reconsidered, as does the relationship of learning to adaptation, to group interaction, to the person, to forms of knowing, and to the nature of learning *qua* learning, as a thing-in-and-of-itself.
- 4) With the demise of dialectics as a basis for bifurcation of the Experiential Learning Cycle, the infrastructure of the model collapses and the operational evolution of styles as combinations of contiguous modes loses construct validity.

## CONCLUSION

A critique of any theoretical system results when one uncovers a crack in the roots of that system. Experiential Learning Theory began as an attempt to integrate *incompatible* domain assumptions, using fallacious and erroneous first principles as starting premise. The result is inherent inconsistency and contradiction. The remedy lies in either, (1) choosing sides, taking first principles and domain assumptions from one stream of intellectual thought or the other; (2) designing a third dimensional, philosophical system of thought; (3) abandoning the theory; or (4) justifying the inconsistencies as they presently exist. Until one of these alternatives is achieved,

Experiential Learning Theory as a statement of what learning is and what it is in relation to any form of adaptation at any level of organization, will remain scientifically, philosophically, and epistemologically refutable. It does not meet the standards of construct validity.

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